

CLAIMS

- 1) A thermoelectric heat pump (10) comprising one or more thermoelectric modules (11) having a hot side connected to a first heat exchanger (12) and a cold side connected to a second heat exchanger (13), characterised in that
5 it comprises a pair of elongated bar-like elements (14,15) made of an electrically and thermally insulating material which are arranged at two parallel sides of the heat exchangers (12,13), at least partly interposed between facing flanges of said heat exchangers, at least one of said elongated bar-like elements (14,15) including electric conductors for
10 supplying power to the thermoelectric modules (11), as well as conductors for supplying control signals therefor, and that said heat exchangers (12,13) contacting the thermoelectric modules (11) are linked one another via a plurality of fasteners (16), each fastener being formed of a substantially C-shaped metal clip and being apt to grip with both ends (16',16'') thereof the
15 facing flanges of the heat exchangers (12,13) in order to hold them together, at least one (16'') of said ends of the fastener (16) gripping a corresponding flange of a heat exchanger (12,13) indirectly with the interposition of a transverse extension (17) of the elongated bar-like elements (14,15) so as to break the thermal bridge which otherwise would be formed between one
20 heat exchanger and the other.
- 2) The thermoelectric heat pump of claim 1, characterised in that the concave portion of each substantially C-shaped fastener (16) encloses the elongated bar-like elements (14,15).
- 3) The thermoelectric heat pump of claim 1, characterised in that the
25 fasteners (16) are made of stainless steel and are designed to assure a load

on a large operating range in order to develop the clamping force without exceeding the yield point.

4) The thermoelectric heat pump of claim 1, characterised in that the heat exchangers (12,13) are arranged in the thermoelectric heat pump in a way
5 that the currents of heat exchange medium touching separately the heat exchange surfaces have cross flow directions.

5) The thermoelectric heat pump of claim 1, characterised in that at least one of the elongated bar-like elements (14,15) contains the power supply conductors to a circulating means for generating a forced flow of a heat
10 exchange medium which contacts the surface of the heat exchangers.